A. Permit Certificate

WASTEWATER BENEFICIAL REUSE PERMIT

ConAgra Foods Specialty Potato Products dba Lamb-Weston

#LA-000005-03

ConAgra Foods, Specialty Potato Products, dba Lamb-Weston, LOCATED AT **2975 Lamb Weston Road, American Falls, ID 83211** IN **Power County** IS HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND OPERATE A WASTEWATER BENEFICIAL REUSE TREATMENT SYSTEM IN ACCORDANCE WITH IDAPA 58.01.17, "RULES FOR THE RECLAMATION AND REUSE OF MUNICIPAL AND INDUSTRIAL WASTEWATER"., THE WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS (IDAPA 58.01.02), THE GROUND WATER RULE (IDAPA 58.01.11), AND ACCOMPANYING PERMIT APPENDICES AND ATTACHMENTS. THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON 3 MARCH 2011.

Mark Dietrich

MARK DIETRICH,
REGIONAL ADMINISTRATOR
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY
POCATELLO REGIONAL OFFICE

SIGNED THIS 3RD DAY OF MARCH, 2006

DEPARTMENT OF ENVIRONMENTAL QUALITY
Pocatello Regional Office
444 Hospital Way, Building #300 –208-236-6160
Pocatello, ID. 83201

POSTING ON SITE RECOMMENDED

B. Permit Contents, Appendices and Attachments

List of Referenced Documents

1. Plan of Operation (Operation and Maintenance Manual)
2. Odor Management Plan
3. Buffer Zone Plan
4. Waste Solids Management Plan

The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater Beneficial Reuse Permit #LA-000005-03 and are enforceable as such. This permit does not relieve **ConAgra Foods Specialty Potato Products dba Lamb-Weston,** hereafter referred to as the Permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

C. Abbreviations, Definitions

Table C-1 Definitions, Terms, and Acronyms

TERM OR ACRONYM	DEFINITION/EXPLANATION
Ac-in	Ac-in = volume of water covering 1 acre of land to a depth of 1 inch = 27,150 gallons
AWS	Available water capacity = weighted composite of the available water holding capacity of the soil to a depth of sixty (60) inches or to the bottom of the root zone.
BMP or BMPs	Best Management Practice(s)
DEQ or the Department	the Idaho Department of Environmental Quality
Director	Director of the Idaho Department of Environmental Quality; or the Director's Designee, i.e. Regional Administrator
ET or E	Evapotranspiration – loss of water from the soil and vegetation by evaporation and by plant uptake (transpiration)
Force Majeure	Literally – "Greater Force". A clause intended to excuse a party from liability if some unforeseen event beyond the control of that party prevents it from performing its obligations. Typically, force majeure clauses cover natural disasters or other "Acts of God", war, or the failure of third parties--such as suppliers or subcontractors--to perform their obligations to the contracting party. Force majeure clauses are intended to excuse a party only if the failure to perform could not be avoided by the exercise of due care by that party.
GS	Growing Season – April 1 through October 31
GWQR	IDAPA 58.01.11 "Ground Water Quality Rule"
Handbook or Guidelines	Handbook for Land Application of Municipal and Industrial Wastewater, DEQ, April 1996
HLR_{GS}	Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to land application hydraulic management units during the growing season. The HLR_{gs} limit is specified in Section F. Permit Limits and Conditions. HLR_{GS} = Irrigation Water Requirement (IWR). The IWR is calculated as: $IWR = IR_{net} / E_i$ and $IR_{net} = CU – (PPT_{GS} + \text{carryover soil moisture}) + LR$ where: IR_{net} = net irrigation requirement, E_i = irrigation efficiency CU = consumptive use, PPT_{GS} =growing season precipitation, LR = leaching requirement.
HLR_{NGS}	Non-Growing Season Hydraulic Loading Rate. Includes any combination of wastewater and supplemental irrigation water applied to each hydraulic management unit during the non-growing season. The HLR_{ngs} limit is specified in Section F. Permit Limits and Conditions. $HLR_{NGS} = (AWC+E-PPT_{NGS})+LR$; where AWC = available water capacity, E = evapotranspiration, PPT_{NGS} = non-growing season precipitation, and LR = leaching requirement
HMU	Hydraulic Management Unit (Serial number prefix is MU-)
IDAPA	Idaho Administrative Procedures Act
IWR	Irrigation Water Requirement – The volume of water required for optimal crop growth. For purposes of this permit, crop IWR can be satisfied by applying any combination of wastewater, supplemental irrigation water and precipitation at rates commensurate to the moisture requirements of the crop, and calculated monthly during the growing season (GS). IWR calculations methodology can be found in the on-line Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater in Chapter 4. Current climatic and ET data, or 30-year average data may be used. IWR calculation methodology can also be found at: U of I at Kimberly IWR planning estimates may also incorporate the judgment of experienced field operators. Whichever method is chosen must be used consistently throughout the application year and the life of the permit unless specific approval for a different methodology is granted by DEQ.

TERM OR ACRONYM	DEFINITION/EXPLANATION
Lb/ac-d	Pounds (of constituent) per acre per day
MG	Million Gallons
MGA	Million Gallons Annually
mL	Milliliter
NGS	Non-growing season – November 1 through March 31
Operating year	The operating year begins with the non-growing season and extends through the growing season of the following year – November 1 – October 31. For example, the 1999-2000 operating year was November 1, 1999 through October 31, 2000.
PCS	Primary Constituent Standard (IDAPA 58.01.11, Rules of the Department of Environmental Quality, IDAPA 58.01.11, "Ground Water Quality Rule", Section 200.01.a, Table II.)
PO	Plan of Operation – required for all permitted wastewater land application facilities pursuant to IDAPA 58.01.17.300.06
PPT_{NGS}	Precipitation during the non-growing season (inches)
SCS	Secondary Constituent Standard (IDAPA 58.01.11, Rules of the Department of Environmental Quality, IDAPA 58.01.11, "Ground Water Quality Rule", Section 200.01.b, Table III)
Site-specific ground water quality levels	The Department may allow site-specific ground water quality levels, for any aquifer category, that vary from a standard(s) in IDAPA 58.01.11, Rules of the Department of Environmental Quality, "Ground Water Quality Rule, "Section 200 or Section 300.
SIW	Supplemental irrigation water (Serial number prefix is GW- for ground water sources; SW- for surface water sources
SMU	Soil monitoring unit (Serial number prefix is SMU-)
TMDL	Total Maximum Daily Load - The sum of the individual waste-load allocations (WLA's) for point sources, Load Allocations (LA's) for non-point sources, and natural background. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. IDAPA 58.01.02 Water Quality Standards and Wastewater Treatment Requirements
Typical crop uptake	Typical Crop Uptake is defined as the median constituent crop uptake from the three (3) most recent years the crop has been grown. Typical Crop Uptake is determined for each hydraulic management unit. For new crops having less than three years of on-site crop uptake data, regional crop yield data and typical nutrient content values, or other values approved by DEQ may be used.
UPL	Upper prediction limits - show the precision by which the fitted model can predict new observations. If UPLs are established at a confidence level of 95%, then 95% of all new observations are expected to fall within these limits. UPLs can be used to compare data from compliance wells with that from background wells. When comparing data, given compliance well sample results come from the same water source, the UPL should be greater than or equal to the data collected from compliance wells. Compliance data greater than UPL is indicative that impacts to ground water have occurred.
WLAP	Wastewater Land Application Permit (or Program)
WW	Wastewater (Serial number prefix is WW-)

D. Facility Information

Table D-1 Facility Information

Facility Information				
Legal Name of Permittee	ConAgra Foods Specialty Potato Products dba Lamb-Weston			
Facility Location	2975 Lamb Weston Road, American Falls, ID 83211			
Legal Location		Township	Range	Section
	Land Application	7S	30E	35
	16-Pond System	8S	30E	3,4,9 & 10
County	Power County			
Type of Facility	Potato Processing (Fry Plant and dehydration lines)			
Facility Contacts	Robert Schutte, Plant Manager John Blair, Engineering Manager Bob Fazio, Industrial Engineer	ConAgra Foods Specialty Potato Products dba Lamb-Weston PO Box 489 American Falls, ID 83211 208-226-2301 208-236-1304 (fax)		
USGS Quad	American Falls SW/Neeley			
Type of Waste	Potato processing (fry preparation & dehydration lines)			
Method of Treatment and Process Description	• In-plant pre-treatment including gross filtration, primary clarification and cavitational air flotation. • Final treatment via land application for beneficial re-use. • A 16-pond system for treatment and evaporative/leaching loss. Slow Rate Land Application – 213.8 irrigated acres 16 Pond System – 240.6 acres (+/-)			
Domestic Sewage System	On-site facultative lagoon			
Domestic Water Supply System	On-site production and potable water supply wells			
Soils on Site (sprinkle irrigation site)	Somewhat excessively drained sandy loams, sand, well-drained fine sandy loam and sandy-clay-loam including Feltham and Quincy types.			

Facility Information	
Depth to Ground Water	20-25 feet (perched ground water in land application area) 30 to 80 feet to shallow groundwater
Beneficial Uses of Ground Water	Agriculture, Industrial, Domestic
Nearest Surface Water	Snake River (ca. ½ mile south-southeast from pond system)
Beneficial Uses of Surface Water	Primary and secondary contact recreation, Agriculture

E. Compliance Schedule for Required Activities

Section E Notes

E.1 The Permittee shall complete activities required in Table E-1 on or before the Completion Date unless the Department approves an alternative date in writing. Where the required submittal is a work plan or schedule for improvements to the wastewater land application system, the Department will respond with any comments, questions or requests for further information within thirty (30) days of receipt of the submittal. If the Department requests further information, the Permittee shall respond within thirty (30) days of the Department's request. The above-described review process will repeat until necessary modifications to the work plan or schedule are completed by the Permittee and approved by the Department. Regulatory intent relative to processes described herein is that the Permittee will submit an approvable document, as determined by the Department, within one-hundred and twenty (120) days past the original submittal due date.

E.2 If any event occurs that may delay the performance of any requirement specified in this permit, the Permittee shall notify the Department in writing within ten (10) days of the date the Permittee knew, or should reasonably have known, of the event. The notice under this paragraph shall describe the anticipated consequences of the delay, measures taken by the Permittee to prevent or minimize the delay, and a schedule by which those measures will be implemented. The Permittee shall utilize all reasonable measures to avoid or minimize delays. If the Department determines that the delay, or anticipated delay, in achievement of any requirement of the permit arises from causes beyond the control of the Permittee (a *force majeure* event), the time for performance of the requirement that is affected by the *force majeure* event will be extended by the Department for such time as the Department determines necessary to complete that requirement. The Department may pursue appropriate enforcement with respect to any delay that does not arise from a *force majeure* or other significant event outside of the Permittee's control.

E.3 Upon approval by the Department, the Permittee shall implement plans required in Section E. All plans required in Table E., upon Department approval, are incorporated by reference into and enforceable as a part of the permit.

Table E-1 - Compliance Schedule for Required Activities

Compliance Requirement Completion Date	Description
CA-005-01 Site Management Plans Twelve (12) months following permit issuance	The Permittee shall update the following management plans to reflect new or modified O&M requirements, wastewater volumes or characteristics. Each updated management plan shall be submitted to DEQ for review and approval. The Permittee may submit updated management plans individually *or* as sub-parts incorporated into a comprehensive Plan of Operation. 1) Plan of Operation (Operation & Maintenance Manual). The O&M manual shall address wastewater land application and pond treatment and disposal facilities and incorporate requirements of this permit. The O&M manual shall be designed for use as an operator guide for actual day-to-day operations to meet permit requirements. The O&M manual shall include daily sampling and monitoring requirements (or reference those listed elsewhere) to insure proper operation of the wastewater treatment facility. 2) Odor Management Plan (OMP). The OMP shall include wastewater treatment systems, land application facilities, and other operations associated with the facility. The plan shall include design considerations, operation and maintenance procedures, and management practices to be employed to minimize nuisance odors. The plan shall also include procedures to respond to an odor incident, including notification procedures. 3) Buffer Zone Plan (BZP). The BZP must delineate, by mapping, hydraulic management units and near-by features of interest including, but not limited to dwellings, public access areas, waterways (natural and artificial), and ground water wells (domestic, irrigation and monitoring). The BZP shall describe maintenance and upkeep of vegetative barriers or other physical structures used to enhance buffer zones. See also Table F-2 Buffer Zone Requirements. 4) Waste Solids Management Plan (WSMP). The plan shall address the management of waste solids associated with wastewater and silt water treatment processes to demonstrate that requirements in Section I, Paragraph 5 (below) are being fulfilled. The updated plan shall include monitoring and reporting requirements for inclusion in annual reports and, if applicable, a map delineating areas to be used for waste solids applications.

Compliance Requirement Completion Date	Description
CA-005-02 1) Four (4) months following permit issuance 2) Four (4) months following Department approval of the Work Plan submitted for 1)	The Permittee shall complete ground water characterization (regional aquifer) and finalization of the site conceptual model. 1) The Permittee shall submit a Work Plan describing: a) the proposed number, locations and completion dates for additional monitoring wells to be installed (as recommended by the Interim Ground Water Modeling Report and subsequent materials), b) the scope and schedule for collecting new ground water data from additional monitoring wells, and c) additional site conceptual model development (constituent fate modeling and aquifer characterization, etc) as necessary to support data compilation and interpretation. 2) The Permittee shall complete work described in 1).
CA-005-03 **1**) Six (6) months following completion of activities in CA-005-02.	The Permittee shall submit for Department review and approval a ground water investigation report (Report) summarizing new ground water monitoring data, results from the additional ground water modeling effort, and overall interpretations of the information obtained from the implementation of requirements in CA-005-02 and prior ground water characterization efforts.
CA-005-04 1) Eighteen (18) months following Department approval of the Report or according to a completion date proposed in the WQIP as approved by the Department.	1) If ground water degradation is documented in the Report and determined by the Department to be of regulatory significance, the Permittee shall submit a Water Quality Improvement Plan (WQIP), the implementation of which will accomplish the following objectives: a) Describes the approximate stretch of the Snake River that may be receiving constituent inputs resulting from ground water ⇔ surface water interactions where those interactions are influenced by mounded shallow ground water beneath the 16-pond system, b) Evaluates a range of conceptual wastewater treatment system improvements with design driven by site-specific ground water quality objectives, c) Proposed improvements must be focused on, but not necessarily limited to physical modification or operation of the 16-pond system, d) Proposes a selection process and timelines for completion of wastewater treatment system improvements, e) Establishes statistically derived upper prediction limits (UPL) for upgradient wells in the shallow and deep aquifers *where upgradient⇔downgradient flow path relationships between wells have been documented*[1]; f) Proposes "site-specific ground water quality levels" for downgradient compliance points for regulated constituents of concern; g) Predicts a "Time Period for Ground Water Compliance" when ground water

[1] Alternative statistical methods may be implemented with prior approval from the Department. It is noted that flow paths do not exist for monitoring points in the shallow aquifer in the vicinity of the pond system due to effects from mounding.

Compliance Requirement Completion Date	Description
2) In accordance with timelines proposed in the WQIP approved by the Department	quality will reflect improvements to the wastewater treatment system and will be at site-specific levels approved by the Department[2]. (See Table F-1, Permit Requirements, Ground Water Quality), h) Describes a public process to inform and involve affected parties regarding the expected scope, severity and duration of ground water degradation resulting from the Permittee's Wastewater Beneficial Reuse activities. 2) The Permittee shall implement improvements to the wastewater treatment system.
CA-005-05 **Twelve (12) months following Department approval of the WQIP required in CA-005-04.**	1) The Permittee shall submit a plan to assess phosphorus impacts to the Snake River down-stream from the 16-pond system. The assessment shall focus on the river stretch most likely to be receiving constituent inputs as a result of ground water ⇔surface water interactions where those interactions are influenced by mounding occurring under the 16-pond system. The Work Plan shall include the following elements: a) An estimate of the annual phosphorus mass flux between the shallow mounded ground water and regional aquifers in the vicinity of the pond system, b) An estimate of the annual phosphorus mass flux attributable to the 16-pond system between the regional aquifer and downgradient surface water receptors (primarily the Snake River).
CA-005-06 **Twelve (12) months following permit issuance**	The Permittee shall submit a Sampling & Analysis Plan (SAP) that includes: 1) A comprehensive description of environmental sampling and analysis procedures (including those necessary for conducting all sampling and monitoring required in Table G-1 Facility Sampling/Monitoring Table), 2) Detailed quality control/quality assurance provisions, 3) Provisions for annual statistical data analysis as recommended by CES, (2004).

F. Permit Limits and Conditions

Section F Notes

F-1 The Permittee is allowed to apply wastewater and treat it on the land application site and within the 16-pond treatment/disposal system as prescribed in Table F-1 - Site Specific Permit Conditions (below) and in accordance with all other applicable permit conditions and schedules.

F-2 Notwithstanding any other provision of this permit, including without limitation the buffer zones set forth herein, the Permittee shall comply with the following: 1) wastewater applied by the Permittee shall be restricted to the premises of the land application sites, and 2) the Permittee shall not discharge wastewater to surface waters of the state, without first obtaining all permits and other authorizations required by state and federal law.

F-3 Notwithstanding provisions in Table F-1, the Department reserves the right to seek remedies available under any applicable authority with respect to an exceedance of any primary or secondary constituent standard in Section 200 in IDAPA 58.01.11, Rules of the Department of Environmental Quality, "Ground Water Quality Rule". or any site

[2] The "Time Period for Ground Water Compliance" means that period of time when concentrations of regulated ground water constituents are predicted to fully reflect improvements to the wastewater land application system brought about through implementation of the WQIP.

specific standard established by the Department pursuant to Section 400.05.b. resulting from the Permittee's wastewater land application.

Table F-1 - Site Specific Permit Conditions

PERMIT CONDITION	PERMIT REQUIREMENT/DESCRIPTION		
General Applicability			
Wastewater Application Sites		Area (acres)	Flow (MGA)
	Land Application Area	213.8	116
	16 Pond System	240.6	890
	Total (approximate)[3]	454.4	1006
Application Season	Land Application Area	Year Round	
	16 Pond System	Year Round	
Reporting Period (Operating Year)	November1 through October 31		
Flow Measurement and Calibration	The Permittee shall calibrate flow meters used to directly or indirectly measure wastewater and supplemental irrigation water flows (excluding the Parshall flume) annually or in accordance with manufacturer's recommendations. Calibration documentation shall be submitted with the Annual Report as required by Sections G. and H. in this permit.		
Construction Plans & Specifications	Pursuant to Idaho Code §39-118, detailed plans and specifications shall be submitted to DEQ for review and approval prior to construction, material modification, or expansion of any wastewater treatment, storage or conveyance facilities or structures. Within 30 days of completion of construction, the Permittee shall submit as-built plans for review and approval or a letter from an Idaho registered Professional Engineer certifying that the wastewater facilities or structures were constructed in substantial accordance with the approved plans and specifications.		
Odor Management	The wastewater treatment plant, land application facilities, and other operations associated with the facility shall not create nuisance conditions (including odors) or public health hazards. The Permittee shall at all times manage wastewater treatment facilities in accordance with an Odor Management Plan approved by the Department.		
Wellhead Protection	Buffer zones of 500 feet or more shall be maintained between land application areas and domestic water supplies (or 1000 feet for public water supplies) unless a Department approved well location acceptability analysis indicates an alternative buffer zone is acceptable (reference the on-line Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater for additional discussion on well location acceptability analyses). Berms and/or other BMPs as necessary shall be used to protect on-site well heads.		

[3] Wastewater flows to the respective management systems are approximate. Pond surface areas, hence volumes vary over time with pond depth.

PERMIT CONDITION	PERMIT REQUIREMENT/DESCRIPTION
Buffer Zones Fencing & Signage Requirements	Buffer Zones and fencing and signage shall be provided and maintained as given in Table F-2 Buffer Zone Requirements/Fencing and Signage Requirements unless reduced buffer zone distances are specified in a Buffer Zone Plan prepared by the Permittee and approved by the Department pursuant to **CA-005-01**.
Cross-Connection Controls	DEQ-approved backflow prevention devices are required where wastewater and fresh irrigation water systems are interconnected. The Permittee shall test mechanical devices annually for proper operation as required by Section G. DEQ approved permanent structures such as siphons or air gaps need not be re-tested unless physical changes are made to the structure.
Maximum Phosphorus Loading Rate	DEQ reserves the right to re-open this permit for inclusion of phosphorous limits.
Ground Water Quality	Ground water quality shall comply with the Ground Water Quality Rule (GWQR), IDAPA 58.01.11, as noted below. 1) The Permittee's conformance with requirements in CA-005-02 through CA-005- 04 shall demonstrate GWQR compliance. 2) Concentrations of constituents in the shallow aquifer in the vicinity of the 16-pond system shall be maintained at existing or decreasing levels within a normal range of statistically validated variability. 3) If treatment system improvements are implemented as a result of requirements in CA-005-04, during the "Time Period for Ground Water Compliance", (described in Table E-1, footnote 2), concentrations of regulated ground water constituents shall not exceed "site-specific ground water quality levels" approved by the Department: [4] a) If the concentration of a regulated ground water constituent exceeds the relevant "site-specific ground water quality level", the Permittee shall obtain a confirmation sample within seven (7) days. The Permittee shall submit results to the Department within seven (7) days following receipt of results from the confirmation sample. i) Confirmation sample results shall be considered valid for purposes of enforcing the terms and conditions of this permit. b) If the concentration of the confirmation sample also exceeds the relevant site-specific ground water quality level; i) the Permittee shall evaluate the cause and submit a detailed analysis to the Department within thirty (30) days explaining the presumed cause of the exceedance, ii) the Permittee shall initiate monthly ground water sampling for active monitoring wells used to monitor ground water in the shallow and deep aquifers in the vicinity of the pond system. Monthly sampling shall continue until concentrations of all constituents of concern return to predicted future concentrations as defined in the WQIP, iii) *the Permittee shall undertake additional remedial actions as directed by the Department and agreed upon through participation in a consent agreement. Such actions may include:* (1) *reductions in site hydraulic and/or constituent loadings,* (2) *further detailed site characterization, or* (3) *other actions determined necessary by the Department.*

[4] During the "Time Period for Ground Water Compliance", the Permittee shall notify the Department two (2) weeks before sampling ground water, (with the exception of confirmation sampling, for which notification shall be at least one (1) week prior to sampling). The Permittee shall allow the Department to obtain splits from samples taken.

<table>
<tr><th colspan="5">*Sprinkle Application Area*</th></tr>
<tr><td>Growing Season Maximum Wastewater Hydraulic Loading Rate (HLR_{gs}) for each HMU (Sum of WW + SIW) each HMU</td><td colspan="4">Growing Season (GS) Hydraulic Loading Rate shall generally follow the Irrigation Water Requirement (IWR) using data from the tables of the following University Of Idaho web site: U of I at Kimberly

IWR is equal to the Mean IR data from these tables divided by the irrigation system efficiency.

In lieu of these tables, current climatic and evaporation data, or 30-year average data may be used to calculate the IWR. (Assume no carryover soil moisture and a leaching rate of zero in calculating the IWR.)</td></tr>
<tr><td rowspan="9">Non-growing Season Maximum Hydraulic Loading Rate (HLR_{ngs}) for each HMU</td><td colspan="4">HLR_{ngs} = Soil Available Water-Holding Capacity (AWC) – Precipitation + $Evapotranspiration_{NGS}$ using the following values:</td></tr>
<tr><td colspan="2">Soil AWC:</td><td colspan="2">dependent on soil type(s)</td></tr>
<tr><td colspan="2">Precipitation NGS:</td><td colspan="2">4.96 inches (Nov 1 through Mar 31)</td></tr>
<tr><td colspan="2">Evapotranspiration NGS:</td><td colspan="2">5.89 inches (Nov 1 through Mar 31)</td></tr>
<tr><td>HMU #</td><td>Acres</td><td>Inches</td><td>Million Gallons</td></tr>
<tr><td>MU-000520</td><td>57.2</td><td>8.13</td><td>12.6</td></tr>
<tr><td>MU-000521</td><td>54.2</td><td>8.13</td><td>12.0</td></tr>
<tr><td>MU-000522</td><td>57.2</td><td>8.13</td><td>12.6</td></tr>
<tr><td>MU-000523</td><td>51.7</td><td>8.13</td><td>11.4</td></tr>
<tr><td></td><td>220.3</td><td></td><td>48.6</td></tr>
<tr><td colspan="4">The maximum HLR_{ngs} for each HMU shall not be exceeded. The maximum total HLR_{ngs} for the entire site is 48.63 million gallons per year.</td></tr>
<tr><td>COD Loading (Seasonal Basis) GS and NGS each HMU</td><td colspan="4">50 lb./ac-day</td></tr>
<tr><td>Annual Nitrogen Loading (Annual Basis) each HMU</td><td colspan="4">150% of typical crop uptake</td></tr>
<tr><td>Allowable Crops</td><td colspan="4">Crops grown for direct human consumption (crops not processed prior to consumption) are not allowed.</td></tr>
<tr><td>Grazing</td><td colspan="4">Grazing is allowed only under the provisions of a Grazing Management Plan approved by the Department</td></tr>
</table>

Table F-2 Buffer Zone Requirements/Fencing and Signage Requirements

Buffer Zone Requirements – Fencing & Signage Requirements[5]	
Feature of Interest	Required Buffer Distance (feet)

[5] Buffer zone distances required in the last column may be reduced to an alternative distance if proposed in the Buffer Zone Plan required in CA-0005-01 and approved by the Department.

Buffer Zone Requirements – Fencing & Signage Requirements[5]	
Dwellings	300
Public access areas	50
Natural surface water bodies	100
Man-made surface waters	50
Fencing and Signage	
Fencing – Sewage Lagoon only	Required Minimum – three-wire pasture fence or equivalent
Signage – Sewage Lagoon only	Required Signs to read "Sewage Effluent Application - Keep Out" or equivalent - to be posted every 500 feet and at each corner of the outer perimeter of the buffer zone(s) of the site

G. Monitoring Requirements

Section G Notes

G.1 The Permittee shall monitor the operation and efficiency of all treatment facilities. The Permittee shall monitor and measure parameters as stated in the Facility Monitoring Table in this section.

G.2 Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.

G.3 Wastewater shall be sampled as follows -- 24-hour composite samples having, at a minimum, four (4) aliquots evenly distributed over time shall be taken.

G.4 The Permittee shall employ appropriate analytical methods, as given in the Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater, or as approved by the Department.

G.5 A description of approved sample collection methods, appropriate analytical methods and companion QA/QC protocol shall be included in the facility's Plan of Operation or Sampling & Analysis Plan as necessary.

G.6 Ground Water Monitoring Procedure: Ground water monitoring wells shall be purged a minimum of three (3) casing volumes and/or until field measurements of at least two of pH, specific conductance and temperature meet the following conditions: successive temperature values measured at least five minutes apart are within one degree Celsius of each other, pH values for two successive measurements measured at least five minutes apart are within 0.2 units of each other, and two successive specific conductance values measured at least five minutes apart are within 10% of each other. This procedure will determine when the wells are suitable for sampling for constituents required by the permit. Other procedures, such as low flow sampling, may be considered by DEQ for approval. The depth to water (static water level) shall be measured prior to purging the well.).

G.7 For fields >15 acres, the Permittee shall collect soil samples within each SMU at a minimum of ten random (10) locations. For fields <15 acres, the Permittee shall collect soil samples at five random (5) locations. At each sample location, individual samples must be taken at three depths, 0-12 inches, 12-24 inches, and 24-36 inches (or refusal). Samples from the same depth within a single SMU may be combined by depth to yield a minimum of three (3) samples per SMU for analysis. Sample locations must be spatially representative of the unit; must consider site-specific characteristics such as topography and drainage; and must exclude unusual areas such as erosion channels, dead furrows and fence lines.

G.8 Unless otherwise agreed to in writing by the Department, data collected and submitted shall include, but not be

limited to, the parameters and frequencies in the following table.

G.9 The Permittee shall sample each lysimeter individually unless insufficient sample volume is obtained. Lysimeter samples may be combined for analysis if required to obtain sufficient sample for lab analysis. If sample volume is inadequate, priority for analysis is: 1) nitrate-N, 2) TDS, 3) dissolved Mn, and 4) dissolved iron. Protocol used for each sampling event shall be documented if individual lysimeter samples are not obtained.

Table G-1 Facility Sampling/Monitoring Table

Process Wastewater			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
Daily	Parshall Flume – WW-000501, (Table K-2 Wastewater Sampling Points)	Volume of process wastewater delivered to the 16-pond system	MG & ac-in
Daily during the GS	Flow meters for MU-000520 through MU-000523 (sprinkle irrigated site) (Table K-1 Hydraulic Management Units	Volume of process wastewater applied to each HMU	MG & ac-in
Daily	Process Wastewater - WW-000501 (Table K-2)	WW Quality - Grab sample	Temperature, pH, SS
Weekly	Process Wastewater - WW-000501, Table K-2)	WW Quality - 24 hour composite sample (see note G.3)	EC, TKN, NH_3-N, COD, pH, TDS, VDS, TS, VS
Monthly	Process Wastewater - WW-000501 (Table K-2)	WW Quality - 24 hour composite sample (see note G.3)	Cl^-, Na, K, P, NO_3-N, TDIS
Quarterly	Process Wastewater WW-000502, WW-000503, WW-000504 (Table K-2)	WW Quality– Grab Sample	EC, TKN, NO_3-N, NH_3-N, COD, pH, CL^-, Na, K, P, TDS, VDS, NVDS, Redox
Silt Water			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
Monthly	Silt Pond(s) receiving silt water - LG-517-519 (Table K-6 Wastewater Lagoons)	Volume of silt water applied (receiving pond(s))	MG & ac-in
Monthly	Silt Water WW-000506 (Table K-2)	Grab Sample (pipe discharge)	TKN, COD, CL^-, P, Na, K
Quarterly	Silt Water – WW-000506	Grab Sample	EC, TKN, NO_3-N, NH_3-N, COD, pH, CL^-, Na, K, P, TDS, VDS, NVDS, Redox
Sanitary Wastewater			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
Daily	Sanitary Wastewater WW-000505 (Table K-2)	Grab Sample	Chlorine Residual
Twice/month	Sanitary Wastewater WW-000505 (Table K-2)	Grab Sample	E.coli
Supplemental Irrigation Water Monitoring			

Frequency	*Monitoring Point*	*Description and Type of Monitoring*	*Parameters*
Daily during the GS	Flow meter for MU-000520 through MU-000523 (sprinkle irrigated site) in Table K-1 Hydraulic Management Units	Volume of Supplemental Irrigation Water applied to each HMU (calculated values)	MG & ac-in
Annually	SIW sampling point(s) Table K-3 Supplemental Irrigation Water Sampling Points	Grab sample	TKN, NO3-N, TDS, VDS, Total P
Ground Water Monitoring			
Frequency	*Monitoring Point*	*Description and Type of Monitoring*	*Parameters*
Quarterly	Ground Water monitoring wells listed as active in Table K-5 Ground Water Monitoring Wells	Grab samples of ground water. See Section note G.6 above	Water Table Depth, Static Water Elevation (In Hundredths Of An Inch), pH, EC, Temperature, COD, Total and dissolved P, NH_3-N, NO_3-N, SO_4^-, CL^-, K, Total And Dissolved Fe, Total And Dissolved Mn[6], TDS
Annually (Recommended)	Domestic wells within ¼ mile of all active treatment acreage[7]	Grab samples of ground water see Footnote 6	NO_3-N, Total-P, SO_4^-, CL^-, Total And Dissolved Fe, Total And Dissolved Mn[2], TDS
Annually - First and last years of permit cycle only (can coincide with any scheduled ¼ly sampling event	Ground Water monitoring wells listed in Table K-5 Ground Water Monitoring Wells & Domestic wells within ¼ mile of all active treatment areas[8] (Recommended for domestic wells)	Grab sample of ground water See Section note G.6 above	Na, K, Calcium, Magnesium, Carbonate, Bicarbonate, SO_4-

[6] Analytical results are required for dissolved Fe and/or Mn only if results for total Fe and/or Mn exceed standards in IDAPA 58.01.11.200.01.b.

[7] Annual domestic well sampling is strongly recommended but not required and applicable only where the owner's permission is obtained.

[8] Same

Soil & Soil Water Monitoring			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
Monthly during the GS	Pan lysimeters listed as active in Table K-7 Lysimeters	Grab samples from pan lysimeters. See section note G.9 above	EC, COD, NO_3-N, Total and Dissolved Fe and Mn, CL^-, TDS and Total and dissolved P
Twice Yearly (pre- and post-growing season)	Each Soil Monitoring Unit listed as active in Table K-4 Soil Monitoring Units	See Section Note G.7 above	pH, plant available P (Olsen Method), K, NO_3-N, Ammonium-N, EC, %OM
Annually – Twice only First and last years of permit cycle	Each Soil Monitoring Unit listed as active in Table K-4 Soil Monitoring Units	See Section Note G.7 above	Sodium Absorption Ratio (Saturated extract basis)
Crop Monitoring			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
GS – each harvest Management unit basis	Each Crop type, Each Hydraulic Unit in Table K-1 Hydraulic Management Units used for crop production	Crop tissue analysis (composite sample of harvested portion, each crop per harvest) *or* crop nutrient concentration values from standard tables[9] Calculate Nitrogen, phosphorus & ash removal	Nitrogen (NO_3^-, protein), Total-P, and Ash removed (lbs/acre-yr), report moisture basis
Site & Equipment			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
One time (in 2006)	Process water flume volume measurement device	Calibration/accuracy of depth measurement	Calibration Results
Annually (or in accordance with manufacturer's written recommendations)	Flow measurement devices for HMUs in the land application system (excluding Parshall Flume)	Flow Measurement Device Calibration Document calibration of flow meters used directly or indirectly to measure wastewater and supplemental irrigation water flows applied to each HMU	Calibration Results
Annually	Points of interconnection between wastewater and any directly connected supplemental irrigation sources	Backflow/Cross-connection prevention control system testing	Report the testing date(s) and results of the test (pass or fail). If any test failed, report the date of repair or replacement of backflow prevention device, and if the repaired/replaced device is operating correctly
Once prior to end of permit cycle[10]	Each lagoon, pond or open ditch used to store or transport process wastewater or sanitary wastewater	Seepage testing using DEQ approved procedures. Report results to DEQ	Seepage rate in inches per day

[9] The Permittee may choose to use values from standard tables for crop nutrient concentration values so long as the published moisture content can be used from the table.

[10] Applicable only to lagoons, ponds, or ditches not otherwise seepage tested as part of the ongoing site characterization and modeling effort, e.g. sewage lagoon.

Calculations & Analysis			
Frequency	***Monitoring Point***	***Description and Type of Monitoring***	***Parameters***
Annually – prior to GS	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Estimate IWR for each crop type for each month during the GS	Volume (MG & inches) to each HMU
Annually – following GS	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Crop Yield (crop tissue mass removal)	Tons/acre, Bu/acre, etc. as appropriate and total yield per HMU report moisture basis
Annually	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Report nutrient removal (Nitrogen and phosphorus) for three prior reporting years	Lb/acre-year
Annually	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Calculate typical (median) nutrient removal (nitrogen and phosphorus)	Lb/acre-year
Annually	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Calculate seasonal average COD loading rates (GS only)	Lbs/acre-day
Annually	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Calculate annual nitrogen and phosphorus loading from WW application	lb/acre-year
Annually	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Report nitrogen and phosphorus fertilizer application rates	lb/acre-year
Annually	Each active HMU in Table K-1 Hydraulic Management Units where a crop is harvested	Calculate sum of wastewater N + fertilizer N and sum of wastewater P + fertilizer P	lb/acre-year
Annually	Process Wastewater Constituent Mass to Pond System (Total input to ponds via LG-000501 and LG-000510) (see Table K-6)	Mass of Nitrogen, Phosphorus, TDS, TDIS (Total lbs. of each constituent sent to the pond system).	lb/year
Annually	Silt Water Constituent Mass to Silt Water Ponds via LG-517 –LG-519 Table K-6 Wastewater Lagoons	Mass of N, P, TDS and TDIS	lb/year
Annually	Ground water monitoring wells	Statistical Analysis of Ground Water Quality results [11]	As described in the approved Sampling & Analysis Plan required in CA-005-03

[11] Statistical analyses should include an evaluation of whether results can be pooled for up- and downgradient comparisons (multiple upgradient monitoring wells pooled to derive one value per constituent to compare to values likewise pooled from downgradient compliance points) or whether comparisons must be made between individual up- and downgradient wells related via a statistically derived ground water flow-path.

H. Standard Reporting Requirements

Section H Notes

H.1 The Permittee shall submit an Annual Wastewater Beneficial Reuse Site Performance Report ("Annual Report") no later than February 28 of each year, which shall cover the previous reporting year (November 1 through October 31). The Annual Report shall include an interpretive discussion of monitoring data (ground water, soils, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility and shall be prepared by a competent environmental professional.

H.2 The Annual Report shall include all laboratory analytical results for environmental sampling required or recommended by Table G-1 Facility Sampling/Monitoring Table (including analytical results from sampling conducted at frequencies greater than those prescribed).

H.3 The Annual Report shall include all results from system monitoring and calculations required in Table G-1 Facility Sampling/Monitoring Table.

H.4 Notice of completion of any work required in the Compliance Schedule for Required Activities shall be submitted to the Department within 30 days of completion. The status of all other work described in Section E shall be submitted with the Annual Report.

H.5 The annual report shall be submitted to the Engineering Manager in the applicable regional DEQ Office listed below.

Idaho DEQ Regional Offices	
Boise Regional Office 1445 N. Orchard Boise, ID 83706-2239 208-373-0550	Coeur d'Alene Regional Office 2110 Ironwood Parkway Coeur d'Alene, ID 83814 208-769-1422
Idaho Falls Regional Office 900 N. Skyline, Suite B Idaho Falls, ID 83402 208-528-2650	Lewiston Regional Office 1118 "F" Street Lewiston, ID 83501 208-799-4370
Pocatello Regional Office 444 Hospital Way, #300 Pocatello, ID 83201 208-236-6160	Twin Falls Regional Office 601 Pole Line Road, Suite 2 Twin Falls, ID 83301 208-736-2190

A copy of the annual report shall also be mailed to:

Richard Huddleston, P.E., Wastewater Program Manager
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706 208-373-0561

I. Standard Permit Conditions: Procedures and Reporting

1. The Permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the Permittee to comply with all conditions of the permit or the Wastewater Beneficial Reuse Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.

2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.

3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03. In order to prevent public health hazards and nuisance conditions the Permittee shall:
   a. Apply wastewater as evenly as practicable to the treatment area;
   b. Prevent organic solids (contained in the wastewater) from accumulating on the ground surface to the point where the solids putrefy or support vectors or insects; and
   c. Prevent wastewater from ponding in the fields to the point where the ponded wastewater putrefies or supports vectors or insects.

4. The Permittee shall:
   a. Manage the wastewater land application treatment site as an agronomic operation where vegetative cover is grown and harvested or grazed to utilize the nutrients and minerals in the wastewater, and,
   b. Not hydraulically overload any particular areas of the wastewater land application treatment site.

5. All waste solids, including dredge and sludge wastes, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate there from, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. The Permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.

6. If the Permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the Permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Land Application Permit Regulations and include seepage tests on all lagoons per latest DEQ procedures.

7. The Permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
   a. Enter the permitted facility,
   b. Inspect any records that must be kept under the conditions of the permit.
   c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
   d. Sample or monitor for assuring permit compliance, any substance or any parameter at the facility.

8. The Permittee shall report to the Director under the circumstances and in the manner specified in this section:
   a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
   b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
   c. Orally within twenty-four (24) hours from the time the Permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)
      i) Pocatello Regional Office: 236-6160 Emergency 24 Hour Number: 1-800-632-8000
   d. In writing as soon as possible but within five (5) days of the date the Permittee knows or should know of any non-compliance unless extended by the DEQ. This report shall contain:
      i) A description of the non-compliance and its cause;
      ii) The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
      iii) Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.
   e. In writing as soon as possible after the Permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.

9. The Permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.

10. The Permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. If problems are present, coordinate with the Idaho Department of Agriculture or the local County authority regarding their requirements for noxious weed control. Also address these control operations in an update to the Operations and Maintenance Manual.

J. Standard Permit Conditions: Modifications, Violation, and Revocation

1 The Permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.

2 Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.

3 Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in Section H. *Standard Reporting Requirements*, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.

4 Permits shall be transferable to a new owner or operator provided that the Permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.

5 Any person violating any provision of the Wastewater Land Application Permit Regulations, or any permit or order issued there under shall be liable for a civil penalty not to exceed ten thousand dollars ($10,000) or one thousand dollars ($1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.

6 The Director may revoke a permit if the Permittee violates any permit condition or the Wastewater Land Application Permit Regulations.

7 Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the Permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the Permittee, unless within that time the Permittee request an administrative hearing in writing to the Board of Environmental Quality pursuant to the Rules of Administrative Procedures contained in IDAPA 58.01.23.

8 If, pursuant to Idaho Code, 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the Permittee. Emergency revocation shall be effective upon receipt by the Permittee. Thereafter, if requested by the Permittee in writing, a revocation hearing before the Board of Environmental Quality shall be provided. Such hearings shall be conducted in accordance with the Rules of Administrative Procedures contained in IDAPA 58.01.23.

9 The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.

10 The Permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application facility from service, including any treatment, storage, or other facilities or equipment associated with the land application site. Prior to commencing closure activities, the Permittee shall: a) participate in a site closure planning meeting with DEQ; b) develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The Permittee must complete the DEQ approved site closure plan.

K. Appendices

Appendix 1. Environmental Monitoring Serial Numbers

Table K-1 Hydraulic Management Units

Serial Number	Hydraulic Management Unit Description (Common Name)	Acres[12]	Monitoring Point
Pond System			
MU-000501	Lagoon 1	18.5	☐
MU-000502	Lagoon 2	19.0	☒
MU-000503	Lagoon 3	17.5	☐
MU-000504	Lagoon 4	25.0	☐
MU-000505	Lagoon 5	17.0	☐
MU-000506	Lagoon 6	23.5	☐
MU-000507	Lagoon 7	17.9	☒
MU-000508	Lagoon 8	14.9	☐
MU-000509	Lagoon 9	16.5	☐
MU-000510	Lagoon 10	7.2	☐
MU-000511	Lagoon 11	19.0	☐
MU-000512	Lagoon 12	11.5	☐
MU-000513	Lagoon 13	13.6	☐
MU-000514	Lagoon 14	11.0	☐
MU-000515	Lagoon 15	9.5	☒
MU-000516	Lagoon 16	12.6	☐
MU-000517	silt pond #1	1.9	☒
MU-000518	silt pond #2	6.3	☒
MU-000519	silt pond #3	2.8	☒
Sprinkle Irrigated Land Application System			

[12] Acreage values are approximate since individual pond depths vary over time.

Serial Number	Hydraulic Management Unit Description (Common Name)	Acres[12]	Monitoring Point
MU-000520	CP-1	57.2	☒
MU-000521	CP-2	54.2	☒
MU-000522	CP-3	57.2	☒
MU-000523	WL + SS	51.7	☒
Total Irrigated Acres		220.3	

Table K-2 Wastewater Sampling Points

Serial Number	Wastewater Type/Description	Common Name	Monitoring Point?
WW-000501	Process water/Plant effluent	Concrete ditch at weir (Parshall flume)	☒
WW-000502	Process water/Pond system	Pond #2	☒
WW-000503	Process water/Pond system	Pond #7	☒
WW-000504	Process water/Pond system	Pond #15	☒
WW-000505	Sanitary wastewater/Sanitary lagoon	Sewage lagoon effluent outfall to concrete process water ditch	☒
WW-000506	Silt water	Silt water	☒

Table K-3 Supplemental Irrigation Water Sampling Points

Serial Number	Supplemental Irrigation Water Sampling Points Description of Location	Monitoring Point?
GW-000530	Lamb-Weston Irrigation Well #3	☒

Table K-4 Soil Monitoring Units

Serial Number	Soil Monitoring Units Description of Location	Associated Hydraulic Management Unit	Acres	Monitoring Point?
SU-000501	Center Pivot #1	MU-000520	57.2	☒

Serial Number	Soil Monitoring Units Description of Location	Associated Hydraulic Management Unit	Acres	Monitoring Point?
SU-000502	Center Pivot #2	MU-000521	54.2	☒
SU-000503	Center Pivot #3	MU-000522	57.2	☒
SU-000504	Wheel lines, hand lines, solid sets	MU-000523	51.7	☒
Total Irrigated Acres			220.3	

Table K-5 Ground Water Monitoring Wells

Serial Number[13,14]	Common Name	Location/Description	Gradient Position[15]	Active Monitoring Point
GW-000501	MW-1S	Shallow, upgradient from ponds	U	☒
GW-000502*	MW-2	Shallow	U	☐
GW-000503*	MW-3	Between Ponds 10 and 6	M	☐
GW-000504	MW-4	Shallow, southeast of Pond 6	D	☒
GW-000505*	MW-5	Shallow, south of pond 8	D	☐
GW-000506	MW-6	Shallow, south of pond 16	D/S	☒
GW-000507	MW-1 deep	Deep, Between WLAP fields and ponds	U	☒
GW-000508*	MW-7S	Shallow, southeast of pond 16	D	☐
GW-000509	MW-7D	Deep, southeast of pond 16	D/S	☒
GW-000510	MW-8	Shallow, northwest corner of land app site	U	☒
GW-000511	MW-9	Shallow, east side of land application site	D/S	☒

[13] Asterisked wells are to be monitored for static water level only.

[14] It is recommended but not required that monitoring points (shallow piezometers), shown in *italics*, are sampled at the same frequency and for the same constituent list as monitoring points shown as active.

[15] U = upgradient, D = downgradient, M = midgradient, S = sidegradient

Serial Number[13,14]	Common Name	Location/Description	Gradient Position[15]	Active Monitoring Point
GW-000512	MW-10	Shallow, south side of land app site	D	☒
GW-000513	DW-2	Domestic Well	Na	☒
GW-000514	DW-3	Domestic Well	Na	☒
GW-000515	DW-4	Domestic Well	Na	☒
GW-000516	MW-11*	Shallow, west of pond 10	U	☐
GW-000517	MW-12	Shallow, south of ponds 1 & 4	D/S	☒
GW-000518	MW-13	Deep, east of substation	D/S	☒
GW-000519	MW-4R	Shallow, southeast of pond 6	D	☒
GW-000520	MW-5R	Shallow, southeast of pond 8	D	☒
GW-000521	MW-14	Shallow, southeast of pond 16	D	☒
GW-000522	MW-15	Shallow, between ponds and WLAP fields	D	☒
GW-000523	MW-16	Shallow, south of MW-10 across RR tracks	D	☒
GW-000524	MW-17	Shallow, North of ponds near RR tracks	U	☒
GW-000525	MW-18	Shallow, west side of pond system	U	☒
GW-000526	MW-19	Shallow, West of pond system	U	☒
GW-000527	*Piezometer-4*	*Shallow piezometer (perched zone)*	*U*	☐
GW-000528	*Piezometer-5*	*Shallow piezometer (perched zone)*	*U*	☐
GW-000529	*Piezometer-6*	*Shallow piezometer (perched zone)*	*U*	☐

Table K-6 Wastewater Lagoons

Serial Number	Common Name	Volume (MG)[16]	Surface Area (acres)[16]	Active Monitoring Point?
LG-000501	Pond 1	12.70	18.5	☒
LG-000502	Pond 2	20.30	19.0	☐
LG-000503	Pond 3	31.30	17.5	☐
LG-000504	Pond 4	61.20	25.0	☐

[16] Pond volumes and acreage values are approximate since individual depths and surface area vary over time

Serial Number	Common Name	Volume (MG)[16]	Surface Area (acres)[16]	Active Monitoring Point?
LG-000505	Pond 5	20.10	17.0	☐
LG-000506	Pond 6	26.10	23.5	☐
LG-000507	Pond 7	31.20	17.9	☐
LG-000508	Pond 8	26.50	14.9	☐
LG-000509	Pond 9	42.60	16.5	☐
LG-000510	Pond 10	13.10	7.2	☒
LG-000511	Pond 11	33.50	19.0	☐
LG-000512	Pond 12	62.20	11.5	☐
LG-000513	Pond 13	27.10	13.6	☐
LG-000514	Pond 14	27.70	11.0	☐
LG-000515	Pond 15	18.60	9.5	☐
LG-000516	Pond 16	20.00	12.6	☐
LG-000517	Silt Pond 1	Na	1.9	☒
LG-000518	Silt Pond 2	Na	6.3	☒
LG-000519	Silt Pond 3	Na	2.8	☒
LG-000520	Surge Basin	Na	.5	☐
LG-000521	Non-contact Cooling Water	Na	14.2	☐
LG-000522	Sanitary Waste Lagoon	Na	1.0	☒

Table K-7 Lysimeters

Serial Number	Common Name	Associated Hydraulic Management Unit	Active?
LY-000501	2A1	MU-000502	☐
LY-000502	2A2	MU-000502	☐
LY-000503	2B1	MU-000502	☐
LY-000504	2B2	MU-000502	☐
LY-000505	7A1	MU-000507	☐
LY-000506	7A2	MU-000507	☐

Serial Number	Common Name	Associated Hydraulic Management Unit	Active?
LY-000507	7B1	MU-000507	☐
LY-000508	7B2	MU-000507	☐
LY-000509	15A1	MU-000515	☐
LY-000510	15A2	MU-000515	☐
LY-000511	15B1	MU-000515	☐
LY-000512	15B2	MU-000515	☐
LY-000513[17]	5 pan lysimeters in CP-1	MU-000520	☐
LY-000514	Lysimeter #1	MU-000514	☒
LY-000515	Lysimeter #2	MU-000515	☒
LY-000516	Lysimeter #3	MU-000516	☒
LY-000517	Lysimeter #4	MU-000517	☒
LY-000518	Lysimeter #5	MU-000518	☒

[17] For this permit, each of the 5 pan lysimeters installed in CP-1 have been designated as active sampling points and assigned unique identifiers. LY-000513 is indicated as inactive.